

PERIODIC TABLE OF ELEMENTS																									
1ST AND 2ND PERIODS													3RD AND 4TH PERIODS												
PERIODS AND PROPERTIES INDEX													PERIODS AND PROPERTIES INDEX												
<p>Application of liquid amalgams (method of Nakazano-Somey) in determining vanadium in iron alloys. A. M. Dimov and O. A. Vokladina. <i>Zavodskaya Lab.</i> 1933, No. 9, 23-33. The revised method of Nakazano-Somey is advantageous in detg. V in ferro-vanadium, in which Cr does not interfere. Diphenylamine upon oxidation gives the soln. a blue color. Its oxidation potential lies between the potentials of <math>Fe^{2+}/Fe^{3+}</math> and <math>V^{IV}/V^{V}</math>. One part of the soln. is titrated in the absence of diphenylamine (oxidation of V and Fe), and the other in the presence of diphenylamine (oxidation of Fe alone). The difference in cc. <math>KMnO_4</math> in titration corresponds to <math>V^{IV} \rightarrow V^{V}</math>, on the basis of which the calcn. is made.</p> <p>S. U. Flovich</p>																									
<p>ASME-SLA METALLURGICAL LITERATURE CLASSIFICATION</p>																									

7

Use of liquid amalgams in the determination of vanadium in iron alloys. A. M. Durnov and O. A. Vokladina. *Zavodskaya Lab.* 2, No. 9, 2532 (1967). In the determination of V in Fe by the methods of Soneya (C. A. 19, 221), Nakazono (C. A. 18, 1543) and Kano (C. A. 17, 247, 2843), Hg-H and Hg-Zn are used. V reduced by Hg-Zn to  $V^{2+}$  is easily oxidized in the air; this makes it hard to obtain accurate values by titration with  $KMnO_4$ .

10. The advantage of the proposed modification of the method with the use of  $Ph_3NH$  as indicator is the use of only 1 amalgam (Hg-Bi) in the reduction of V and Fe with the elimination of the formation of  $V^{2+}$ .  $Ph_3NH$  is oxidized by  $KMnO_4$  with the formation of blue solns. only after the complete oxidation of  $Fe^{2+}$  to  $Fe^{3+}$  and before the oxidation of  $V^{2+}$  to  $V^{3+}$ . A parallel titration with  $KMnO_4$  is made without  $Ph_3NH$  (oxidation of V and Fe) and with  $Ph_3NH$  (oxidation of Fe only), and the calcn. is made from the difference between the 2 values corresponding to the oxidation of  $V^{2+}$  to  $V^{3+}$ . A correction of 0.1 cc. of 0.2 N  $KMnO_4$  consumed in the oxidation of  $Ph_3NH$  is introduced. The acidity of the titrated soln. is 10% HCl or  $H_2SO_4$  by vol. The addn. of 20 cc. of Zimmermann-Reinhardt mixt. prevents the yellow solns. of V and Fe from masking the end point of titration.

Chas. Blanc

ASAC SLA METALLURGICAL LITERATURE CLASSIFICATION

60

Determination of titanium in cast iron, iron and steel.  
A. M. Durnov and G. A. Vasilina. *Zhurnal* (Lab.),  
1945, 74(1944). A comparative study of the proposed  
methods for the detn. of Ti in Fe products showed that of  
the 2 best procedures that of Cunningham (C. A. 27,  
3272) is preferable to the method of Thornton (Z. anorg.  
Chem. 86, 407(1914)), because it gives equally accurate  
results but does not consume excessive time in filtering the  
large ppt. of FeS and evapn. of the voluminous filtrate.  
The cooling of the soln. to 0° before pptg. Ti with cupro-  
n in the Thornton method is not necessary. C. H.

CA

Determination of titanium in stainless steel. A. M. Dymov and O. A. Volodina. *Zavodskaya Lab.* 5, 1047-51 (1968); cf. C. A. 39, 28807. —Ti (V, Al, P) is sepd. from Cr, Ni, Fe, Co and Cu by electrolysis in weak  $H_2SO_4$  soln. with Hg cathode (cf. Cain, C. A. S. 2791; Lundell, C. A. 17, 3454; Lundell, et al., Brophy, C. A. 18, 3158). Ti and V in the soln. are pptd. with cupferron. The ppt. is ignited and then fused with  $Na_2CO_3$ . The melt is treated with hot water, Ti is filtered off, and, after dissolving in 50% HCl, is pptd. with cupferron. V is detd. in the filtrate with the addn. of  $H_2SO_4$  and cupferron.

Chas. Blanc

ASH-SLA METALLURGICAL LITERATURE CLASSIFICATION

Photocolorimetric Method for the Analysis of Iron Alloys. II. Determination of Nickel in Steel. A. M. Dymov and O. A. Volodina. 6 pages. Henry Krutcher, Altadena, Calif. (Abstract Translation No. 1968.) From *Zavodskaya Laboratoriya*, v. 12, no. 3, 1946, p. 634-642.

Gives results of an experimental study of present colorimetric methods for nickel in metals and of the influence of third elements. Proposed procedures for nickel in steels containing up to 1% Ni, and also for those containing 1-5% Ni, are described.

1ST AND 2ND GROUPS										3RD AND 4TH GROUPS									
PROCESSING AND PROPERTIES INDEX																			
<p>5</p> <p>21</p> <p><b>Photochemical Methods for the Analysis of Iron Alloys. III. Determination of Cobalt in Steel.</b> A. M. Dymov and O. A. Yekudina. (Zavodskaya Laboratoriya, 1947, vol. 13, pp. 137-144; Chemical Abstracts, 1948, vol. 42, Feb. 30, p. 1160).</p>																			
<p>ASTM-A14 METALLURGICAL LITERATURE CLASSIFICATION</p>																			
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BC

B-I-5

Determination of titanium in cast iron, iron, and steel. A. M. Durov and O. A. VOLODIXA (Zavod. Lab., 1934, 3, 1065-1074).—Cunningham's method (B., 1933, 1080) is preferred to that of Thornton (B., 1916, 615).  
R. T.

A C 0 5 5 4 METALLURGICAL LITERATURE CLASSIFICATION

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100-1782 2070 1700 6-46

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1994, 1995, 1996, 1997, 1998, 1999, 2000, 2001, 2002, 2003, 2004, 2005, 2006, 2007, 2008, 2009, 2010, 2011, 2012, 2013, 2014, 2015, 2016, 2017, 2018, 2019, 2020, 2021, 2022, 2023, 2024, 2025, 2026, 2027, 2028, 2029, 2030, 2031, 2032, 2033, 2034, 2035, 2036, 2037, 2038, 2039, 2040, 2041, 2042, 2043, 2044, 2045, 2046, 2047, 2048, 2049, 2050, 2051, 2052, 2053, 2054, 2055, 2056, 2057, 2058, 2059, 2060, 2061, 2062, 2063, 2064, 2065, 2066, 2067, 2068, 2069, 2070, 2071, 2072, 2073, 2074, 2075, 2076, 2077, 2078, 2079, 2080, 2081, 2082, 2083, 2084, 2085, 2086, 2087, 2088, 2089, 2090, 2091, 2092, 2093, 2094, 2095, 2096, 2097, 2098, 2099, 2100, 2101, 2102, 2103, 2104, 2105, 2106, 2107, 2108, 2109, 2110, 2111, 2112, 2113, 2114, 2115, 2116, 2117, 2118, 2119, 2120, 2121, 2122, 2123, 2124, 2125, 2126, 2127, 2128, 2129, 2130, 2131, 2132, 2133, 2134, 2135, 2136, 2137, 2138, 2139, 2140, 2141, 2142, 2143, 2144, 2145, 2146, 2147, 2148, 2149, 2150, 2151, 2152, 2153, 2154, 2155, 2156, 2157, 2158, 2159, 2160, 2161, 2162, 2163, 2164, 2165, 2166, 2167, 2168, 2169, 2170, 2171, 2172, 2173, 2174, 2175, 2176, 2177, 2178, 2179, 2180, 2181, 2182, 2183, 2184, 2185, 2186, 2187, 2188, 2189, 2190, 2191, 2192, 2193, 2194, 2195, 2196, 2197, 2198, 2199, 2200, 2201, 2202, 2203, 2204, 2205, 2206, 2207, 2208, 2209, 2210, 2211, 2212, 2213, 2214, 2215, 2216, 2217, 2218, 2219, 2220, 2221, 2222, 2223, 2224, 2225, 2226, 2227, 2228, 2229, 2230, 2231, 2232, 2233, 2234, 2235, 2236, 2237, 2238, 2239, 2240, 2241, 2242, 2243, 2244, 2245, 2246, 2247, 2248, 2249, 2250, 2251, 2252, 2253, 2254, 2255, 2256, 2257, 2258, 2259, 2260, 2261, 2262, 2263, 2264, 2265, 2266, 2267, 2268, 2269, 2270, 2271, 2272, 2273, 2274, 2275, 2276, 2277, 2278, 2279, 2280, 2281, 2282, 2283, 2284, 2285, 2286, 2287, 2288, 2289, 2290, 2291, 2292, 2293, 2294, 2295, 2296, 2297, 2298, 2299, 2300, 2301, 2302, 2303, 2304, 2305, 2306, 2307, 2308, 2309, 2310, 2311, 2312, 2313, 2314, 2315, 2316, 2317, 2318, 2319, 2320, 2321, 2322, 2323, 2324, 2325, 2326, 2327, 2328, 2329, 2330, 2331, 2332, 2333, 2334, 2335, 2336, 2337, 2338, 2339, 2340, 2341, 2342, 2343, 2344, 2345, 2346, 2347, 2348, 2349, 2350, 2351, 2352, 2353, 2354, 2355, 2356, 2357, 2358, 2359, 2360, 2361, 2362, 2363, 2364, 2365, 2366, 2367, 2368, 2369, 2370, 2371, 2372, 2373, 2374, 2375, 2376, 2377, 2378, 2379, 2380, 2381, 2382, 2383, 2384, 2385, 2386, 2387, 2388, 2389, 2390, 2391, 2392, 2393, 2394, 2395, 2396, 2397, 2398, 2399, 2400, 2401, 2402, 2403, 2404, 2405, 2406, 2407, 2408, 2409, 2410, 2411, 2412, 2413, 2414, 2415, 2416, 2417, 2418, 2419, 2420, 2421, 2422, 2423, 2424, 2425, 2426, 2427, 2428, 2429, 2430, 2431, 2432, 2433, 2434, 2435, 2436, 2437, 2438, 2439, 2440, 2441, 2442, 2443, 2444, 2445, 2446, 2447, 2448, 2449, 2450, 2451, 2452, 2453, 2454, 2455, 2456, 2457, 2458, 2459, 2460, 2461, 2462, 2463, 2464, 2465, 2466, 2467, 2468, 2469, 2470, 2471, 2472, 2473, 2474, 2475, 2476, 2477, 2478, 2479, 2480, 2481, 2482, 2483, 2484, 2485, 2486, 2487, 2488, 2489, 2490, 2491, 2492, 2493, 2494, 2495, 2496, 2497, 2498, 2499, 2500, 2501, 2502, 2503, 2504, 2505, 2506, 2507, 2508, 2509, 2510, 2511, 2512, 2513, 2514, 2515, 2516, 2517, 2518, 2519, 2520, 2521, 2522, 2523, 2524, 2525, 2526, 2527, 2528, 2529, 2530, 2531, 2532, 2533, 2534, 2535, 2536, 2537, 2538, 2539, 2540, 2541, 2542, 2543, 2544, 2545, 2546, 2547, 2548, 2549, 2550, 2551, 2552, 2553, 2554, 2555, 2556, 2557, 2558, 2559, 2560, 2561, 2562, 2563, 2564, 2565, 2566, 2567, 2568, 2569, 2570, 2571, 2572, 2573, 2574, 2575, 2576, 2577, 2578, 2579, 2580, 2581, 2582, 2583, 2584, 2585, 2586, 2587, 2588, 2589, 2590, 2591, 2592, 2593, 2594, 2595, 2596, 2597, 2598, 2599, 2600, 2601, 2602, 2603, 2604, 2605, 2606, 2607, 2608, 2609, 2610, 2611, 2612, 2613, 2614, 2615, 2616, 2617, 2618, 2619, 2620, 2621, 2622, 2623, 2624, 2625, 2626, 2627, 2628, 2629, 2630, 2631, 2632, 2633, 2634, 2635, 2636, 2637, 2638, 2639, 2640, 2641, 2642, 2643, 2644, 2645, 2646, 2647, 2648, 2649, 2650, 2651, 2652, 2653, 2654, 2655, 2656, 2657, 2658, 2659, 2660, 2661, 2662, 2663, 2664, 2665, 2666, 2667, 2668, 2669, 2670, 2671, 2672, 2673, 2674, 2675, 26

**APPROVED FOR RELEASE: 08/09/2001**

**CIA-RDP86-00513R001860710002-6"**





1ST AND 2ND ORDERS										3RD AND 4TH ORDERS																																																	
PROCESSING AND PROPERTIES INDEX																																																											
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<p>Photochemical methods for the analysis of iron alloys. III. Determination of cobalt in steel. A. M. Dymov and O. A. Volokina (Stalin Steel Inst., Moscow). <i>Zashchita Lab.</i> 13:137-141(1971); cf. C. I. 41, 1171.</p> <p>For the photoelec. colorimetric detn. of Co by a method similar to that of R. G. Jones (C.I. 13, 15) the reagent is 0.1 g. <i>n</i>-nitroso-<math>\beta</math>-naphthol plus 10 ml. of 5% KOH or NaOH per l. For steel contg. (a) less than 1% of Co, and (b) between 1 and 5% of Co, dissolve 0.1 g. sample, and dil. to 100 or 200 ml., resp. For (a) use 10 ml. of soln., for (b) 5 ml.; add 10 or 5 ml., resp., of 20% Rochelle salt soln. to prevent pptn. of Fe, then 10 or 5 ml., resp., of 5% KOH soln., and, in either case, make up to 100 ml. Max. intensity of color is produced by 15-20 ml. of reagent per 100 ml. of soln. independently of the quantity of Co present. Sensitivity is increased by using a blue light filter. Cr up to 14%, W up to 17.7%, and Ni up to 1% do not interfere; greater quantities than 1% of Ni intensify the color. Construct 2 calibration curves (one for Co &gt; 1%, one for Co 1-5%) based on galvanometer deflections. Up to 5% of Co, the values found do not deviate more than 0.2% from results obtained by the Hinsky-Knorr gravimetric method. R. H.</p>																																																											
ASAC-51A METALLURGICAL LITERATURE CLASSIFICATION																																																											
<table border="1"> <tr> <td>1</td><td>2</td><td>3</td><td>4</td><td>5</td><td>6</td><td>7</td><td>8</td><td>9</td><td>10</td><td>11</td><td>12</td><td>13</td><td>14</td><td>15</td><td>16</td><td>17</td><td>18</td><td>19</td><td>20</td> </tr> <tr> <td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td> </tr> </table>																				1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20																				
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1ST AND 2ND CODES										3RD AND 4TH CODES									
PROCESSING AND PROPERTY MODES																			
<p><i>CA</i></p> <p style="text-align: right;"><i>7</i></p> <p>A photocalorimetric method for the analysis of iron alloys. II. Determination of nickel in steel. A. M. Dymov and O. A. Yelshina (Stalin Steel Inst., Moscow). <i>Zavodskaya Lab.</i> 12, 834-42(1946).--Dissolve 0.1 g. of the sample in a suitable mixt. of <math>\text{HNO}_3</math> and <math>\text{H}_2\text{SO}_4</math> and oxidize with <math>\text{HNO}_3</math>. To a suitable aliquot of the filtered soln. add Rochelle salt, and neutralize with <math>\text{NaOH}</math> soln. Add 10 ml. of 3% <math>(\text{NH}_4)_2\text{SO}_4</math> soln. and 10 ml. of alk. dimethylglyoxime reagent, dil., let stand 10 min., and measure the color in a photoelec. colorimeter. 24 references. W. R. Henn</p>																			
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[illegible]

VOLODINA, O.D., inzhener.

The use of sulfite protein glue in veneering. Der.pron.5 no.7:  
21-23 J1 '56. (MLRA 9:9)

1.Moskovskiy fanernyy zavod.  
(Glue) (Veneers and veneering)

VOLODINA, P. A.

Pavlichenkov, Vasiliy Ivanovich

Volzhskiy; zhilishchno-grazhdanskoye stroitel'stvo.

Pod red. P. A. Volodina. Moskva, Gosstroyizdat, 1961.

133 p. illus, diagrs. (Opyt Sovetskoy Arkhitektury)

At head of title: Akademiya Stroitel'stva i Arkhitektury SSSR. Institut Teorii i Istorii Arkhitektury i Stroitel'noy Tekhniki.

PA 8T61

VOLODINA, T. A.

Mar 1947

USSR/Notchedbar Tests  
Duralumin

"On the Notch Sensitivity of High-strength Alloys," J. B. Friedman, T. A. Volodina,  
4 pp

"CR Acad Sci" Vol LV, No 8

Investigation of the characteristics of duralumin and the high-strength aluminum  
alloy "B-95" developed by I. N. Friedlaender.

8T61

1. FRIDMAN, Ya. B.; VOLODINA, T. A.
2. USSR (600)
4. Metals
7. Effect of relieving groove on the static strength of metals. Vest. mash. 32 no. 7 1952.
9. Monthly List of Russian Accessions, Library of Congress, February 1953. Unclassified.

28 (5)  
AUTHORS:

Volodina, T. A., Gordeyeva, T. A.,  
Fridman, Ya. B.

SOV/32-25-8-29/44

TITLE:

Methodology of Investigation of the Microgeometry of the  
Surfaces of Fractures

PERIODICAL:

Zavodskaya laboratoriya, 1959, Vol 25, Nr 8, pp 984-989 (USSR)

ABSTRACT:

Assuming that the height of unevenness on fracture surfaces (F) increases under same conditions with the increase of the velocity of spreading of the cracks (C) one can apply visual, fractographic and similar methods for clarification of the destruction kinetics. The profilogram of the (F) was obtained in the present case with an optic-mechanical profilograph IZP-5 (Ref) at a 500x enlargement in vertical direction (Fig 1) of the profile and in 50x enlargement in horizontal direction, thus the unevenness could be measured in a height of 2-240  $\mu$ . To accelerate the measuring a special device was developed (Fig 2) in collaboration with N. V. Ryazanov, V. M. Markochev and Yu. A. Bulanov. The device consists of a measuring dial and a counter. They investigated (F) on samples of steel 30KhGSNA, 40KhNMA and a highly resistant experimental steel A, applying varying kinds of stresses and sample shapes and the samples were subjected to thermal treatment. The various

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Methodology of Investigation of the Microgeometry of  
the Surfaces of Fractures

SOV/32-25-8-29/44

character of the changes of the unevenness along the (F) is apparently caused by the property of the material to "inhibit" the spreading of the (C). The efficiency of this "inhibiting" depends on the properties of the material, the magnitude of tensions, the kind of stress and other factors. The experiments proved that the steel 30KhGSNA has a higher "inhibiting" capacity (C) than steel A. It was established that in several cases the character of the change of the unevenness along the (F) was determined by the level of the primary tension and the steepest increase of unevenness was observed at an increase of the stress at a high tension level. The measurements of the height of the unevennesses of (F) after repeated static and impact-bending tests permits a qualitative evaluation of the conditions of destruction and the change in one of the following factors: condition of the material, the magnitude of the repeated stress, the character of the stress and the presence of a tension-concentrator on the test-surface. There are 8 figures and 2 Soviet references.

Card 2/2

GORDEYEVA, T.A.; VOLODINA, T.A.; ZAYTSEV, A.M.

Particular characters of the structure of the fatigue  
fractures of specimens and elements of heat resistant  
alloys. Zav.lab. 27 no.7:894-899 '61. (MIRA 14:7)  
(Metals--Fatigue) (Heat resistant alloys)

VOLODINA, T. A.

USSR/Metals - Testing

Aug 50

"Evaluation of Plasticity in Notches on Half-Ring and Rectangular-Bar Specimens,"  
Ya. B. Fridman, A. A. Bat', T. A. Volodina

"Zavod Lab" Vol XVI, No 8, pp 966-975

Discusses simple method for evaluating notch sensitivity of metals under static loads.  
Method, based on measuring plasticity in notch of specimen bent by static load was  
tested on steels and aluminum alloys of high and medium strength at room temperature  
and partially at -70°.

FDD PA 169T37

VOLODINA, T. A.

Journal of the Iron and Steel  
Institute  
Vol. 176 Part 3  
Mar. 1954  
Properties and Tests

5  
③ met

**Evaluation of Notch Plasticity on Half-Ring and Prismatic Specimens.** V. B. Ponomarev, A. A. Bist' and T. A. Volodina. (Zametki po Tekhnologii, 1950, 18, (11), 966-973). (In Russian). A simple method for the evaluation of the sensitivity of metals to notching along and across the fibres during single static loading is reported. The method is based on the measurement of the notch plasticity of a notched specimen being bent by a static load, the plasticity being determined from the deflection in the plastic zone when the first crack appears. Deflection is found from the deformation diagram. For studying the transverse mechanical properties of small metal sections half-ring specimens are recommended. The method was tested on steels and some aluminium alloys at room temperature and at  $-70^{\circ}\text{C}$ . In all tests the deflection changed more sharply the toughness. The proposed method has the following advantages over the usual evaluation of materials by toughness: (a) Notch plasticity is determined independently of the strength of the material, thus enabling materials of different strength to be compared; (b) the use of half-ring specimens enables transverse notch plasticity to be conveniently controlled in parts down to 16 mm. in dia.; and (c) the method is more sensitive than the normal determination of deformation on impact specimens. The method is time-consuming.—S. K.

BOKSHTEYN, S.Z. (Moskva); KISHKIN, S.T. (Moskva); LOZINSKIY, M.G. (Moskva);  
SOKOLKOV, Ye.N. (Moskva); Prinimali uchastiye: PODVOYSKAYA, O.N.;  
ZILOVA, T.K.; SOROKINA, K.P.; POLYAK, E.V.; MOROZ, L.M.;  
BULYGIN, I.P.; LASHKO, N.F.; POKAMESTOVA, T.N.; GORDEYEVA, T.A.;  
YAGLOV, R.V.; VOLODINA, T.A.; KORABLEVA, G.N.; ANTIPOVA, Ye.I.

Thermomechanical treatment of chromium-nickel-manganese  
austenitic steel. Izv. AN SSSR. Otd. tekhn. nauk. Met. i topl.  
no.2:15-21 Mr-Ap '62. (MIRA 15:4)  
(Chromium-nickel steel--Hardening)

25637

S/032/61/027/007/008/012  
B110/B203

15.2610

AUTHORS: Gordeyeva, T. A., Volodina, T. A., and Zaytsev, A. M.

TITLE: Structural properties of fatigue failures of samples and machine parts made of refractory alloys

PERIODICAL: Zavodskaya laboratoriya, v. 27, no. 7, 1961, 894-899

TEXT: The origin of fractures (by fatigue, brittleness) must often be judged from their appearance. The fractures of refractory Ni - Cr alloys (of the deformable types  $\text{ЖМ} 437$  (EI 437) and  $\text{ЖМ} 617$  (EI 617), as well as of cast alloys) do not show the typical fatigue phenomena of fractures of structural steels. Since the fatigue failures of refractory alloys show some common features with fractures of aluminum and magnesium alloys, their structural peculiarities are due to working conditions and material structure. Some fractures of gas turbine blades and disks were examined visually and fractographically on a special apparatus in the area of least spring tension. Two notches were applied in such a way that the remaining neck was 15 mm. The blades were loaded statically or periodically (eccentric

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# Structural properties of fatigue ...

mechanism). They were heated with a benzene - air mixture, and their temperature was measured with an optical pyrometer. An investigation of blades made of  $\text{ЭИ 437Б}$  (EI 437 B) alloy and cast alloy (Table) showed the following: In their fractures, focus and center are less distinct than in structural steels since there are many focuses in fatigue failures under simultaneous action of variable stresses and high temperatures (e.g., on gas turbine parts). The fracture focus has a facet with smoother surface than the other facets in the zone of fatigue propagation of the crack, and is not, as in structural steels, perpendicular to the direction of most extended stresses. It is often small, and little different from the rest of the fatigue zone. Here, the start of destruction is determined from the orientation of the ribs formed by the confluence of surface destructions. The latter begin in different, adjacent focuses. The fold relief is also oriented toward the start of destructions. With increasing destruction propagation in the depth, the height of ribs decreases. Since the first cracks are often far apart, especially the ribs distant from the destruction center do not flow together. The following characteristics were established: (1) Simultaneous formation of several focuses; (2) development of destruction on some gliding surfaces in the crystallite;

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Structural properties of fatigue ...

(3) formation of several cracks. Hyperbolic lines in the center of fatigue destruction of cast steel indicate: (1) the formation of many local focuses, and (2) the confluence of primary cracks into one destruction surface. Distinct fatigue lines proceeding through the entire destroyed section are not discernible; wavelike lines beginning and ending at the boundaries of a grain are sometimes observed. The gradualness of destruction development can be observed on annular stripes of differently colored oxide films which may, however, be missing at low temperatures, high stresses, and quick destruction propagation. Typical fatigue lines usually appear in the form of rings at low temperatures and under high vibrational stresses. Characteristic are the displacement microsurfaces forming jointly the fold relief on the surface of destroyed grains. These facets differently oriented in space are the destruction surfaces of one or more adjacent grains of equal orientation. Here, a smooth part and a fold-relief part proceeding therefrom are discernible. On one facet, the folds are equally oriented: fan-shaped or nearly parallel. The fold surface of the elementary facets is probably formed due to destruction along adjacent shear planes and confluence of these destructions. The shape of a fan is probably due to rotation of the crystal regions round an axis. The mentioned characteristics in

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B110/B203

# Structural properties of fatigue ...

cylindrical samples, blade- and disk tests were observed on the test plant and in turbine operation. Under complicated operational conditions, the zone arrangements in the fracture are different. Only at 500-550°C for EI 437 B and 700-800°C for cast alloy, and under high vibrational loads, the destruction behaves like a fatigue failure. The destruction of scarf joint parts and projections between the scarf joints is of fatigue character: continuous lines pass through the entire section, and the fold relief is oriented. Since, besides high temperature and static load, also the effect of the macroscopic concentrator (longitudinal groove) is noticeable, there are more centers than in the fracture of smooth profile parts. [Abstracter's note: seven photographs, not reproducible.] There are 7 figures, 1 table, and 2 Soviet-bloc references.

## Table. Test conditions of blades.

Legend: (1) Blade material, (2) test temperature, °C, (3) amplitude value of stresses, kg/mm<sup>2</sup>, (4) number of cycles before start of destruction, (5) note, (6) EI 437 B, (7) cast alloy, (8) ditto, (9) with single loading until complete destruction, (10) with periodic amplitude changes of stresses, (11) with 12-fold heat change, (12) with 4-fold heat change, (13) until

Card 4/6

25637

S/032/61/027/007/008/012  
B110/B203

Structural properties of fatigue ...

formation of cracks, (14) periodic stress and temperature changes, (15)  
periodic stress change until formation of cracks.

Card 5/6

SEMIKHATOVA, N.M.; VOLODINA, T.I.

Determining the degree of suitability of new hybrid yeast  
cultures for yeast plants. Trudy Inst.gen. no.35:69-75 '65.  
(MIRA 18:12)

VOLODINA, V.

Frank talk. Okhr.truda i sots.strakh. 3 no.6:75 Je '60.  
(MIRA 13:7)

1. Spetsial'nyy korrespondent zhurnala "Okhrana truda i sotsial'-  
noye strakhovaniye".  
(Industrial hygiene--Periodicals)

VOLODINA, V.

An interesting poster. Okhr.truda i sots.strakh. 3 no.4:57  
Ap '60. (MIRA 13:6)  
(Baku--Petroleum industry--Hygienic aspects)

VOLODINA, V.A.; PETROV, Yu.V.

Complex of jet streams over Japan on December 8-10, 1959.  
Izv. AN Uz. SSR. Ser. fiz.-mat. nauk 9 no.4:80-81 '65.  
(MIRA 18:9)  
1. Tashkentskiy gosudarstvennyy universitet imeni Lenina.

L 14476-66 EWT(1)/FCC GW

ACC NR: AR5012908

UR/0169/65/000/003/B025/B025  
551.510.528

SOURCE: Ref. zh. Geofizika, Abs. 3B168

AUTHOR: Volodina, V.A.

TITLE: Types of tropopauses above [Soviet] Central Asia, according to radioprobes carried out at the Tashkent station

CITED SOURCE: Tr. Sredneaz. n.-i. gidrometeorol. in-ta, vyp. 19(34), 1964, 8-16

TOPIC TAGS: tropopause, stratosphere, temperature distribution

TRANSLATION: The acceptability is clarified for the typification of tropopauses, according to code KN-04. For this purpose, radioprobes made in Tashkent in January, April, July and September, 1960, were used. A tropopause type is determined according to the actual distribution of temperature. A comparison of the reoccurrences of tropopause types within a certain month, leads to the conclusion that above Tashkent, Alma-Ata and the Eastern Pamir, the prevailing types of tropopauses are the ones characterized by the code's 1 to 4 digits. For all these types, a coincidence of the tropopause with the level of sharp changes in the temperature gradient is characteristic. The types of tropopause suggested by the International Code are acceptable for Tashkent, with certain clarifications: 1) it is expedient to define the altitude

Card 1/2

L 14476-66

ACC NR: AR5012908

and the types of tropopause in accordance with the actual distribution of temperature, 2) for multistrata tropopause it is necessary to take into consideration the lower stratum, 3) for defining the lower stratum it is necessary to consider the level above which zero and negative temperature gradients are observed, and for upper tropopause - the altitude at which the stratosphere begins with a vertical temperature gradient of less than  $2^{\circ}/\text{km}$ .

SUB CODE: 04

OC  
Card 2/2



*VOLODINA V.A.*  
ANTONOVA, L.T., kand.med.nauk; VOLODINA, V.A., kand.med.nauk

Capillaroscopic data in various stages of hypertension in adolescents  
[with summary in English]. *Pediatrics* 36 no.3:21-25 Mr '58.  
(MIRA 11:3)

1. Iz podrostkovogo otdeleniya (zav. A.V.Khodshash) Instituta  
gigiyeny truda i profsabolevaniy AMN SSSR (dir.-deystvitel'nyy chlen  
AMN SSSR prof. A.A.Letavet)  
(HYPERTENSION) (CAPILLARIES)

VOLODINA, V. A.

VOLODINA, V. A.; MAZUNINA, G. N.

Treating occupational angiotrophoneuroses with a two-bath technique including Naftalan petroleum. Vop.kur.fizioter. i lech.fiz.kul't. 22 no.4:12-14 J1-Ag '57. (MIRA 10:11)

1. Iz Instituta gigiyeny truda i profsabolevaniy AMN SSSR (dir. - deystvitel'nyy chlen AMN prof. A.A.Letavet, sav. neurologicheskoy otdeleniye - doktor meditsinskikh nauk B.A.Drogichina)

(NERVOUS SYSTEM--DISEASES)

(PETROLEUM--THERAPEUTIC USE)

(ELECTROTHERAPEUTICS)



5

ON THE STRENGTH AND DUCTILITY OF QUENCHED AND TEMPERED STEEL

J. B. Friedman and T. A. Voledina. (Comptes Rendus (Doklady) de l'Academie des Sciences de l'URSS, 1946, vol. 48, No. 8, pp. 559-562).

Data on the mechanical properties of Chromansil steel (containing about 1% each of chromium and silicon) are presented and discussed and it is shown that whilst it behaves in a brittle manner in the tensile test after quenching and tempering, it has appreciable ductility when tested in torsion.

AS 50.51.4 METALLURGICAL LITERATURE CLASSIFICATION

On the Notch Sensitivity of High-Strength Alloys. (In English.) J. B. Friedman and T. A. Voledina. *Comptes Rendus de l'Academie des Sciences de l'URSS*, v. 55, no. 8, 1947, p. 743-746.

The notch sensitivities of duralumin and high-strength aluminum-alloy bars were investigated in order to find out whether the high notch sensitivity of alloy steels was a property of other alloys as well. Effects of different heat treatments were also evaluated. Results indicate that notched aluminum-alloy specimens also show diminished ductility with increasing ultimate strength.

3-267. On the Notch Sensitivity of High-Strength Alloys. J. B. Friedmann and T. A. Volodina. *Comptes Rendus de l'Academie des Sciences de l'U.R.S.S.* v. 55, no. 8, 1947, p. 713-716. (In English.)

The notch sensitivities of duralumin and high-strength aluminum alloy bars are investigated to find out whether the high notch sensitivity of alloy steels is a property of other alloys as well. Effects of different heat treatments. Notched aluminum-alloy specimens show diminishing ductility with increasing ultimate strength.

KOGAN, L.G.; BAISHEV, B.T.; VOLODINA, V.I.

Effect of the position of nonpermeable reservoir boundaries on  
indices of the reservoir development. Trudy VNIJ no. 438257-277  
\*63. (MIRA 1967)

VOLODINA, V.M.

**Ways to reduce the warpwise striped effect in stockings. Tekst.**  
prom. 20 no.7:39-42 J1 '60. (MIRA 13:7)  
(Hosiery industry)  
(Knitting machines)



VOLODINA, V.M., inzh.

New two-cylinder automatic knitting machine. Leg. pron. 18  
no.9:43-46 S '58. (MIRA 11:10)  
(Knitting machines)

VOLODINA, V.M.

VOLODINA, V.M., inzh.

Effect of the size of needles and pressers on the formation of  
longitudinal lines on hosiery. Leg. prom. 17 no.10:33-37 0 '57.  
(Hosiery industry--Equipment and supplies) (MIRA 10:12)

VOLODINA, V.M., inzhener; ZININ, P.F., master.

The MRA automatic, two-cylinder, circular hosiery-knitting machine.  
Leg.prom. [16] no.11:34-37 H '56. (MLRA 10:1)  
(Knitting machines)

L 27621-65 EWT(m)/EPF(c)/EWP(t)/T/EWP(j)/EMP(b) Pc-L/Pr-L IJP(c) JD/RN

ACCESSION NR: AP5005392

S/0138/65/000/002/0016/0019

AUTHOR: Lezhnev, N. N.; Yampol'skiy, B. Ya.; Lyalina, N. M.; Volodina, V. V.

TITLE: Simulation of the effect of carbon-black structures on the reinforcement of rubber

SOURCE: Kauchuk i rezina, no. 2, 1965, 16-19

TOPIC TAGS: rubber strengthening, carbon black structure, simulating system, carbon black dispersion, strengthening mechanism

ABSTRACT: A study has been made of structure formation of carbon-black dispersions in xylene and in raw rubber solutions — systems which simulate filled rubbers. The experiments were conducted with unmodified and modified common carbon blacks. The structure formation processes were determined from measurements of electrical conductivity and ultimate shearing stress. It was shown that carbon-black dispersions form quasi-equilibrium coagulation systems with thixotropic properties. The addition of small amounts of rubber to carbon-black dispersions sharply increased the strength of the structures. The strengthening of the systems was attributed not only to adsorption of the polymers onto the black, but also to the formation of macromolecular structures which are oriented along the carbon-black chains to

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L 27621-65

ACCESSION NR: AP5005392

2

form a supramolecular network. Chemical or physical modification of the carbon-black surface changed the surface energy and sharply affected the structure of the dispersions and their mechanical properties. Orig. art. has: 5 figures and 1 table. [B0]

ASSOCIATION: Nauchno-issledovatel'skiy institut shinnoy promyshlennosti (Scientific Research Institute of the Rubber Industry); Moskovskiy Gosudarstvennyy universitet im. M. V. Lomonosova (Moscow State University)

SUBMITTED: 00

ENCL: 00

SUB CODE: MT

NO REF SOV: 007

OTHER: 002

ATD PRESS: 3190

Card 2/2

BUKHAROVA, I., inzh.; VOLODINA, Ye., tekhnik

Modernizing the parquet planing machines. Stroitel' no.8:23  
Ag '59. (MIRA 12:12)  
(Parquet floors)

**PERSMAN**, Aleksandr Yevgen'yevich, akademik [deceased]; **VOLODINA**, Ye.I.,  
red.izd-va; **KASHINA**, P.S., tekhn.red.

[Geochemistry made interesting; chemistry of the earth] Zani-  
matel'naia geokhimiia; khimiia zemli. Moskva, Izd-vo Akad.nauk  
SSSR, 1959. 398 p. (MIRA 13:2)  
(Geochemistry)

KARTSEV, Sergey Sergeyevich; SHAPIRO, Solomon Il'ich; TUCHKOVA, L.K.,  
inzh., ved. red.; VOLODIN, Ye.I., kand.tekhn.nauk, red.;  
SOROKINA, T.M., tekhn. red.

[Universal device for checking hobbing cutters. Height gauge  
for measuring the depth of thread of thread rings] Universal'nyi  
pribor dlia kontrolya cherviachnykh frez. Vysotomer dlia izme-  
reniya vysoty profil'ia rez'by u rez'bovykh kolets. [By] S.I.  
Shapiro. Moskva, Filial Vses.in-ta nauchn. i tekhn. informa-  
tsii, 1958. 16 p. (Peredovoi nauchno-tekhnicheskii i proizvod-  
stvennyi opyt. Tema 21. No.M-58-156/6) (MIRA 16:3)  
(Metal-cutting tools--Testing) (Gauges)



COUNTRY : USSR  
 CATEGORY : General Biology. General Histology. B  
 ABJ. JOUR. : RZhBiol., No. 3, 1959, No. 9620  
 AUTHOR : Volodina, Ye. P.  
 TEST : -  
 TITLE : The Transformation of Tongue Epithelium Trans-  
 planted in Another Organism.  
 ORIG. PUB. : Arkhiv anatomii, gistol. i embriol., 1952, 35,  
 No 2, 67-73  
 ABSTRACT : The transformation of lingual mucosa tissues  
 and glands taken from rabbit embryos and adult  
 rabbits was studied by cultivating them in the  
 organisms of the recipient rabbit according to  
 the method of Lazarenko. The implants were ex-  
 tracted after 1-30 days, and histological  
 specimen were prepared of them. Within the  
 first hours of the experiment an inflammation  
 develops around the implant, and a swelling  
 and detachment of the epithelial surface

CARD:

1/3

18

large basophilic cords  
 go an intensive mitotic division. Monolayer  
 epithelial cords become gradually tessellated

COUNTRY : USSR  
CATEGORY :

ABR. JOUR. : RZBiol., No. 1959, No.

AUTHOR :  
INST. :  
TITLE :

ORIG. PUB. :

ABSTRACT : a vertical anisomorphism appears, and typical tessellated epithelia are formed in which a  
Kornification of the upper layers may occur.  
After 18-25 days all newly grown epithelio-  
connective tissue structures undergo a re-  
verse process of development and are replaced  
by fibrous connective tissue. Simultaneously,  
characteristics of ento- and ectodermal epi-  
thelia appear in the morphology of the newly  
formed structures of the tongue tissues. --  
V. V. Polovtsova

CARD: 3/3

SOKOLOVEROVA, I.M.; BOCHKAREVA, A.A.; VOLODINA, Ye.P.; OLEKS, S.; TSINBERG, Ye.

Effect of repeated instillations of insulin into the conjunctival sac on the course of alloxan diabetes. Biul. eksp. biol. i med. 53 no 4: 64-66 Ap '62. (MIRA 15:4)

1. Iz kafedry patologicheskoy fiziologii (zav. - dotsent I.M. Sokoloverova) i kafedry glaznykh bolezney (zav. - dotsent A.A. Bochkareva Orenburgskogo meditsinskogo instituta (dir. - dotsent S.S.Mikhaylov). Predstavlena deystvitel'nym chlenom AMN SSSR V.V.Parinym).

(DIABETES) (INSULIN) (CONJUNCTIVA)

VOLODINA, Ye.P. (Chkalov (obl.), ul. Komintern, 6)

Transformations of lingual epithelium segments implanted in rabbits.  
[with summary in English] Arkh.anat.gist. i embr. 35 no.2:67-73  
Mr-Apr '58 (MIRA 11:5)

1. Kafedra gistologii i embriologii Chkalovskogo meditsinskogo  
instituta (zav. - prof. Z.S. Khlystova).

(TONGUE, anatomy & histology

transform. of tongue epithelium segments implanted  
in rabbits (Rus))

(EPITHELIUM, anatomy & histology

transform. of tongue epithelium segments implanted  
in rabbits (Rus))

VOLODINA, Ye.P. (Orenburg, ul. Komintern, 6a)

Cultivation of the epithelium of the anterior lobe of the hypophysis  
in the body. Arkhiv.anat., gist. i embr. 43 no. 9:41-45 S '62.  
(MIRA 17:9)

1. Kafedra gistologii i ombriologii (zav. - prof. Z.S.Khlyatova)  
Orenburgskogo meditsinskogo instituta.

AL'TSHULER, V.M., kand. geogr. nauk; ANTROPOVA, L.V., st. inzh.;  
BUKHTEYEV, V.G., st. inzh.; VOLODINA, Z.G., ml. nauchn.  
sotr.; RZHONSNITSKIY, V.B., kand. geogr. nauk; SELITSKAYA,  
Ye.S., kand. geogr. nauk; FUKS, V.R., kand. geogr. nauk;  
BREKHOVSKIKH, Yu.P., red.; TIMONOV, V.V., red.

[Study of tidal phenomena in a heterogeneous sea] Issledovanie prilivnykh iavlenii v neodnorodnom more. Leningrad, Gidrometeoizdat, 1965. 183 p. (MIRA 18:8)

1. Leningradskoye otdeleniye Gosudarstvennogo okeanograficheskogo instituta (for Al'tshuler).
2. Murmanskoye upravleniye gidrometeorologicheskoy sluzhby (for Antropova).
3. Leningradskiy gidrometeorologicheskii institut (for Bukhteyev).
4. Gosudarstvennyy okeanograficheskii institut (for Volodina, Selitskaya).
5. Leningradskiy gosudarstvennyy universitet imeni A.A.Zhdanova (for Rzhonsnitskiy, Fuks).

VOLODINA, Z.S.

USSR/ Medicine - Histology

Card 1/1 Pub. 22 - 57/63

Authors : Volodina, Z.S.

Title : Age changes in subcutaneous fibrous connective tissues of humans

Periodical : Dok. AN SSSR 99/6, 1099-1101, Dec 21, 1954

Abstract : Medical experiments were conducted on 23 human bodies (victims of accidents), to explain the structure of the subcutaneous fibrous connective tissue of human beings of various ages. Observations showed that the fibrous connective tissue of a human in all its natural characteristics has the same structure as other mammals and consists of the basic matter and cell elements. Age results in change in quantitative ratio between the basic matter and the cell element: the amount of basic matter increases and the total number of cell elements decreases. Reduced is a relative number of low-differentiating elements and increased is a certain number of high-differentiating cells and degenerating forms. Seven USSR references (1927-1951). Drawing.

Institution: State Medical Institute, Molotov

Presented by: Academician M.M. Anichkov, October 25, 1954

VOLODINA, Z.S.

Structure of porous connective tissue in man. Doklady Akad. nauk  
SSSR 88 no. 3:555-558 21 Jan 1953. (GLML 24:1)

1. Presented by Academician N. N. Anichkov 21 October 1952. 2. Mo-  
lotov State Medical Institute.



5 (3)

AUTHORS:

Golova, O. P., Merlis, N. M., Volodina, Z. V. SOV/79-29-3-52/61

TITLE:

Formation of the 1,6-Anhydroglucofuranose During the Thermal Decomposition of Cellulose in Vacuum (Polucheniye 1,6-angidroglyukofuranozy pri termoraspadе tsellyulozy v vakuume)

PERIODICAL:

Zhurnal obshchey khimii, 1959, Vol 29, Nr 3, pp 997-1000 (USSR)

ABSTRACT:

The present paper is the continuation of the investigation of the chemical composition of the solid distillate which is obtained in the case of the thermal dissociation of cellulose in vacuum. This distillate (yield 75%) consists of 70% 1'glucosane and contains carbonyl compounds, acids, their derivatives and phenols. By the application of anionites the products admixed to 1'glucosane could be almost removed (Ref 1). After the following removal of 1'glucosane by recrystallization a syrup-like product was obtained which contained up to 72% substances which had after the hydrolysis a greater reducibility to the anhydride of glucose and a zero rotary power. In the syrup-like product dextrogyrate substances could be assumed beside 1'glucosane, i.e. polymers of 1'glucosane and its isomer, the  $\beta$ -1,6-anhydroglucofuranose. The method of D. Hurd and R. W.

Card 1/2

Formation of the 1,6-Anhydroglucofuranose During the Thermal Decom-  
position of Cellulose in Vacuum SOV/79-29-3-52/61

Ligett which consists in the analytical separation of the mono-, di-, and trisaccharides by distillation in vacuum over their propionates was used in order to detect the presence of polymers (Ref 4). Only the monomerpropionate was found to exist. The 1,6-anhydroglucofuranose was separated in the form of its n-nitrobenzoic ester and characterized by the ultimate analysis, melting point and specific rotary power. It could be identified as the n-nitrobenzoyl derivative of the 1,6-anhydroglucofuranose. The 1,6-anhydroglucofuranose is obtained from cellulose with an approximate yield of 3% (with respect to cellulose). A scheme is suggested as to the formation mechanism of the 1,6-anhydroglucofuranose during the thermal decomposition of cellulose in vacuum. There are 7 references, 1 of which is Soviet.

ASSOCIATION:

Institut lesa Akademii nauk SSSR (Forestry Institute of the Academy of Sciences, USSR)

SUBMITTED:

January 24, 1958

Card 2/2

GOLOVA, O.P.; MERLIS, N.M.; VOLODINA, Z.V.

Obtaining 1,6-anhydroglucofuranose by vacuum pyrolysis of  
cellulose. AN SSSR. Otd. khim. nauk no.9:1127-1128 S '58.

(MIRA 11:10)

1. Institut lessa AN SSSR.

(Cellulose) (Glucofuranose)

MERLIS, N.M.; VOLODINA, Z.V.; SOLOVA, O.P.

Certain derivatives of  $\beta$ -1,6-anhydroglucopyranoses. Tri-O-ethyl-  
and di-O-methyllevoglucosan. Zhur. ob. khim. 34 no.11:3819-3821  
N '64 (MIRA 18:1)

AUTHORS: Golova, O. P., Merlis, N. M.,  
Volodina, Z. V. SOV/62-58-9-18/26

TITLE: The Preparation of 1,6-Anhydroglucofuranose by the Vacuum  
Pyrolysis of Cellulose (Polucheniye 1,6-angidroglyuko-  
furanozy pri termoraspade tsellyulozy v vakuume)

PERIODICAL: Izvestiya Akademii nauk SSSR. Otdeleniye khimicheskikh nauk,  
1958, Nr 9, pp 1127 - 1127 (USSR)

ABSTRACT: Continuing their study of the chemical structure of  
the solid distillate prepared by the pyrolysis of  
cellulose in vacuum, the authors found that the separating  
out a neutral material from the distillate by means  
of an anion-exchanger and the isolation of this material  
from a laevo-glucosan by crystallization gave a syrupy  
product. The investigation of this latter showed that it  
contained 1,6-anhydroglucofuranose and did not contain any  
polymers. There are 3 references, 1 of which is Soviet.

Card 1/2

The Preparation of 1,6-Anhydroglucofuranose by the  
Vacuum Pyrolysis of Cellulose

SOV/62-58-9-18/26

ASSOCIATION: Institut lesa Akademii nauk SSSR (**Institute of Wood and  
Forestry, AS USSR**)

SUBMITTED: March 11, 1958

Card 2/2

KUCHEROV, V.F.; VOLODINA, Z.V.

Amino derivatives of the heterocyclic series. V. Condensation products of 5-halogeno-2-aminopyridines with acetoacetic ester. J. gen. Chem. USSR, '50, 20, 1890-1897 [U.S. transl., 1957-1964]. (MLRA 3:9)  
(BA - A II Ja '53:83)

15-57-10-14657D  
Translation from: Referativnyy zhurnal, Geologiya, 1957, Nr 10,  
p 215 (USSR)

AUTHOR: Volodkevich, I.I.

TITLE: Nature of Mineral Springs and Hydromineral Resources  
of Pyatigorsk (Rezhim mineral'nykh istochnikov i gidromineral'nyye  
resursy Pyatigorska)

ABSTRACT: Bibliographic entry on the author's dissertation for the  
degree of Candidate of Geological and Mineralogical Sciences,  
presented to the Mosk. geologorazved. in-t (Moscow Geological  
Prospecting Institute), Moscow, 1956.

ASSOCIATION: Mosk. geologorazved. in-t (Moscow Geological  
Prospecting Institute), Moscow

Card 1/1



VOLODKEVICH. I. I. Cand Geol-Min Sci -- (diss) "The system of mineral springs,  
<sup>the</sup> and mineral-water resources of Pyatigorsk ." Mos, 1956. 15 pp 20 cm. (Min of  
Higher Education USSR. Mos Geol Prospecting Inst im S. Ordzhonikidze), 120 copies  
(KL, 8-57, 108)

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MALAKHOV, N.I.; GNILOVSKIY, V.G., kand.geograf.nauk; ~~VOLODKOVICH, I.I.~~  
starshiy nauchnyy sotrudnik [deceased]; SEREDIN, R.M., dotsent,  
kand.biolog.nauk; VISHNEVSKIY, A.S., doktor med.nauk; SKRIPCHINSKIY,  
V.V., dotsent; GALUSHKO, A.I.; KHARCHENKO, L.I., red.; STEBLYANKO,  
T.V., tekhn.red.

[Caucasian Mineral Waters] Kavkazskie Mineral'nye Vody; putevoditel'.  
Izd.5., perer. i dop. Stavropol', Stavropol'skoe knizhnoe izd-vo,  
1960. 339 p. (MIRA 13:11)

1. Bal'neologicheskiy institut na Kavminvodakh (for Volodkevich).  
(CAUCASUS--MINERAL WATERS)

YERSHOV, V.V.; VOLOD'KIN, A.A.

4-Bromo-2,6-di-tert. butylcyclohexadien-2,4-one. Izv. AN SSSR  
Otd.khim.nauk no.4:730 Ap '62. (MIRA 15:4)

1. Institut khimicheskoy fiziki AN SSSR.  
(Cyclohexadienone)

VOLOD'KIN, A.A.; YERSHOV, V.V.

Hindered phenols. Report No.5: Quinobenzilic rearrangement  
of quinobromic compounds. Izv.AN SSSR.Otd.khim.nauk no.7:1292-  
1295 J1 '62. (MIRA 15:7)

1. Institut khimicheskoy fiziki AN SSSR.  
(Phenols) (Rearrangements (Chemistry))

YERSHOV, V.V.; VOLOD'KIN, A.A.

Sterically hindered phenols. Report No.9: Effect of acid reagents  
on bromoquinone compounds. Izv. AN SSSR. Otd.khim.nauk no.11:2026-  
2031 N '62. (MIRA 15:12)

1. Institut khimicheskoy fiziki AN SSSR.  
(QUINONE) (HYDROBROMIC ACID)

YERSHOV, V.V.; VOLOD'KIN, A.A.

Sterically hindered phenols. Report No. 14: Effect of p-substituents  
in 2,6-di-tert-butylphenols on the formation of bromocyclohexadienones.  
Izv.AN SSSR Otd.khim.nauk no.5:893-899 My '63. (MIRA 16:8)

1. Institut khimicheskoy fiziki AN SSSR  
(Phenol) (Cyclohexadienone) (Substitution (Chemistry))

NIKIFOROV, G.A.; VOLOD'KIN, A.A.; DYUMAYEV, K.M.

Inhibitors of free radical reactions. Report No.6: Autoalkylation  
in the 4-hydroxybenzylamine series. Izv.AN SSSR.Ser.khim. no.9:1661-  
1666 S '64. (MIRA 17:10)

1. Institut khimicheskoy fiziki AN SSSR.

YERSHOV, V.V.; VOLOD'KIN, A.A.

Spontaneous rearrangement of orthoquinobromic compounds. Izv.  
AN SSSR Ser. khim. no.2:336-342 '65.

(MIRA 18:2)

1. Institut khimicheskoy fiziki AN SSSR.



YERSHOV, V.V.; VOLOD'KIN, A.A.

Hindered phenols. Report No.4: Mannich reaction in the 2,6-dialkylphenol series. Izv.AN SSSR.Otd.khim.nauk no.7:1290-1292  
Jl '62. (MIRA 15:7)

1. Institut khimicheskoy fiziki AN SSSR.  
(Phenol) (Mannich reaction)

VOLODKIN, A.V.

Factors affecting fluctuations of fish catches in the Aral  
Sea. Trudy sov. Ikht. kom. no.13:427-429 '61.

(MIRA 14:8)

1. Aral'skoye otdeleniye Instituta ikhtiologii i rybnogo  
khozyaystva AN Kazakhskoy SSR.  
(Aral Sea--Fisheries)

1. VOLODKIN, I. G.
2. USSR (600)
4. Poultry - Feeding and Feeding Stuffs
7. Acidophilous-yeast feed. Ptitsevodstvo no. 6, 1952.

9. Monthly List of Russian Accessions, Library of Congress, February 1953, Unclassified.

VOLOD'KIN, V., inzh.

The heart and bearings. Izobr.i rats. no.12:13-15 D '60.

(MIRA 13:12)

(Electrodiagnosis)

VOLODKIN, V., fotokorrespondent gazety "Pravda".

The insignia and the rose. Sov.foto 19 no.11:49 N '59.  
(Youth--Congresses) (MIRA 13:4)

*Volodine, N.*  
VOLODINEV, N.

The main precept of the foreman Vostrov. Stroitel' no.10:6 0 '57.  
(MIRA 10:11)

(Building)

(Foremen)

VOLODKIN, A.V.

Reconstruction of the Aral Sea fisheries and present tasks of fishery  
research. Mat. k pozn. fauny i flory SSSR. Otd. zool. no. 19:3-5 '50.  
(Aral Sea--Fisheries--Research) (MIRA 11:3)

VOLOD'KIN, A.A.; YERSHOV, V.V.

Sterically hindered phenols. Report No.1: Synthesis of some  
3,5-ditert-butyl-4-oxybenzylamines. Izv. AN SSSR Otd.  
khim.nauk no.2:342-345 F '62. (MIRA 15:2)

1. Institut khimicheskoy fiziki AN SSSR.  
(Benzylamine)



YERSHOV, V.V.; VOLOD'KIN, A.A.; BOLDIN, A.A.

Sterically hindered phenols. Report No.2: Synthesis of  
2,6-di-tert.amyl- and 2-tert.butyl-6-tert.amylphenols. Izv.AN  
SSSR.Otd.khim.nauk no.6:1105-1107 '62. (MIRA 15:8)

1. Institut khimicheskoy fiziki AN SSSR.  
(Phenol) (Steric hindrance)

VOLOD'KIN, A.A.; YERSHOV, V.V.

Sterically hindered phenols. Report No.3: Phenol-dienone rearrangement in the bromination of 2,4,6-trialkylphenols. Izv.AN SSSR.- Otd.khim.nauk no.6:1108-1111 '62. (MIRA 15:8)

1. Institut khimicheskoy fiziki AN SSSR.  
(Phenol) (Bromination) (Rearrangements (Chemistry))

TERENT'YEV, A.P.; VOLODINA, M.A.; VOLOD'KIN, A.A.; MISHINA, V.G.;  
KOMISSAROV, I.V.

Aminopropanediol derivatives. Part 2: Compounds of the type 1,3-  
[R'R'' NCH<sub>2</sub>CH(OH)CH<sub>2</sub>O]<sub>2</sub>C<sub>6</sub>H<sub>4</sub>. Zhur. ob. khim. 32 no.1:174-177 Ja '62.  
(MIRA 15:2)

(Resorcinol)

(Amines)

YERSHOV, V.V.; VOLOD'KIN, A.A.; BOGDANOV, G.N.

Phenol-diene regroupment in the reactions of phenols. Usp.khim.  
32 no.2:154-194 F '63. (MIRA 16:4)

1. Institut khimicheskoy fiziki AN SSSR.  
(Phenols) (Cyclohexadienone)

VOLODKIN, A.A.

Overall mechanization of intrafactory conveying in containers.  
Biul.tekh.-ekon.inform.Gos.nauch.-issl.inst.nauch.1 tekhn.inform.  
no.12:77-79 '63. (MIRA 17:3)

YERSHOV, V. V.; VOLOD'KIN, A. A.

Sterically hindered phenols. Report No. 11: Action of bromine  
on 2,6-dialkyl-4-ethylphenols. Izv. AN SSSR Otd. khim. nauk  
no.12:2150-2154 D '62. (MIRA 16:1)

1. Institut khimicheskoy fiziki AN SSSR.

(Phenol) (Bromine) (Steric hindrance)

YERSHOV, V. V.; BOGDANOV, G. N.; VOLOD'KIN, A. A.

Sterically hindered phenols. Report No. 13: Reaction of 2,6-di-tert-butylbenzoquinone with organomagnesium compounds. Izv. AN SSSR. Otd. khim. nauk no.1:157-161 '63.  
(MIRA 16:1)

1. Institut khimicheskoy fiziki AN SSSR.

(Benzoquinone) (Magnesium organic compounds)  
(Steric hindrance)

YERSHOV, V.V.; VOLOD'KIN, A.A.; NIKIFOROV, G.A.; DYMAIEV, K.M.

Sterically hindered phenols. Report No.6: Bromination of 2,6-dialkyl-p-cresols and 3,5-dialkyl-4-hydroxybenzyl bromides. Izv. AN SSSR.Otd.khim.nauk no.10:1839-1843 0 '62. (MIRA 15:10)

1. Institut khimicheskoy fiziki AN SSSR.  
(Cresol) (Bromination) (Rearrangements (Chemistry))



NIKIFOROV, G.A.; DYUMAYEV, K.M.; ~~VOLOD~~<sup>VOLOD</sup>KIN, A.A.; YERSHOV, V.V.

Inhibitors of free radical reactions. Report No.3: Formylation  
of 2,6-dialkylphenols. Izv. AN SSSR.Otd.khim.nauk no.10:1836-1838  
0 '62. (MIRA 15:10)

1. Institut khimicheskoy fiziki AN SSSR.  
(Phenol) (Formylation) (Benzaldehyde)

YERSHOV, V.V.; VOLOD'KIN, A.A.

Sterically hindered phenols. Report No.7: Mechanism of the  
formation of bromoquinone compounds. Izv.AN SSSR. Otd.khim.  
nauk no.11:2015-2022 N '62. (MIRA 15:12)

1. Institut khimicheskoy fiziki AN SSSR.  
(Phenol) (Bromination) (Steric hindrance)

VOLOD'KIN, A.A.; YERSHOV, V.V.

Sterically hindered phenols. Report No.8: Formation of cyclohexadienones in the bromination of 2,6-dialkylphenols. Izv. AN SSSR. Otd.khim.nauk no.11:2022-2026 N '62. (MIRA 15:12)

1. Institut khimicheskoy fiziki AN SSSR.  
(Cyclohexadienone) (Phenol) (Bromination)

VOLOD'KIN, A. A.; YERSHOV, V. V.

Sterically hindered phenols. Report No. 12: Dibromodialkyl-  
cyclohexadienones. Izv. AN SSSR. Otd. khim. nauk no.1:152-157  
'63. (MIRA 16:1)

1. Institut khimicheskoy fiziki AN SSSR.

(Phenol) (Cyclohexadienone)  
(Steric hindrance)

VOLOD'KIN, A.A.; OSTAPETS-SVESHNIKOVA, G.D.; YERSHOV, V.V.

Reaction of organomagnesium compounds with  
4-hydroxy-3,5-di-tert-butylbenzyl bromide. Izv. AN SSSR.  
Ser.khim. no.12:2188-2190 '65. (MIRA 18:12)

1. Institut khimicheskoy fiziki AN SSSR. Submitted April  
2, 1965.

VOLOD'KIN, A.A.; OSTAPETS-SVETLOV, G.I.; YEREMOV, V.V.

Use of organomagnesium compounds for the production of sterically hindered phenols. Izv. AN SSSR. Ser.khim. no.1:174-176, 1966.  
(MIRA 19:1)

1. Institut khimicheskoy fiziki AN SSSR. Submitted May 20, 1965.

L 36973-66 EWP(j)/EWT(m) RM  
ACC NR: AP6008511 SOURCE CODE: UR/0062/66/000/001/0174/0176

AUTHOR: Volod'kin, A. A.; Ostapets-Sveshnikova, G. D.; Yershov, V. V.

ORG: Institute of Chemical Physics, Academy of Sciences SSSR (Institut khimicheskoy fiziki Akademii nauk SSSR)

TITLE: The use of organomagnesium compounds to synthesize steric-hindered phenols

SOURCE: AN SSSR. Izvestiya. Seriya khimicheskaya, no. 1, 1966, 174-176

TOPIC TAGS: phenol, chemical synthesis, Grignard reagent, organomagnesium compound, *BROMIDE*

ABSTRACT: The authors studied the interaction of five different 4-hydroxy-3,5-dialkylbenzyl bromides with ethyl magnesium bromide. With an excess of Grignard's reagent the hydroxy benzyl bromides form corresponding para-n-propylphenols with yields of 60-80% regardless of the dimensions of the alkyl substitutes. This reaction makes it possible to synthesize the most diverse para-alkylphenols by proceeding from the appropriate 2, 6-dialkyl-p-cresols. The authors point out that the formation of alkylphenols from hydroxyalkylbenzyl bromides proceeds well only with the use of an excess of the organomagnesium compound. The authors thank N. M. Emanuel for constant interest in this work during its fulfillment. Orig. art. has: 1 table.

UDC: 542.957.2

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L 36973-66

ACC NR: AP6008511

SUB CODE: 07/ SUBM DATE: 20May65/ ORIG REF: 010/ OTH REF: 002

Card 2/2 *JS*



VOLODKIN, A.V.

Estimation of prospective fish resources and principal trends in the development of fisheries in the Aral Sea. Stor. rab. po ikht. i gidrobiol. no.3:124-145 '61. (MIRA 15:1)

1. Iz Aral'skogo ikhtiologicheskogo otdeleniya Instituta ikhtiologii i rybnogo khozyaystva AN Kazakhskoy SSR.  
(Aral Sea--Fisheries)

VARSHAVSKIY, S.N.; SHILOV, M.N.; DUBYANSKIY, M.A.; YEREMITSKAYA, N.A.;  
YEREMITSKIY, N.Ya; VOLODKIN, A.V.

Brief news. Biul. MOIP. Otd. biol. 68 no.4:152-158 J1-Ag '63.  
(MIRA 16:10)

L 12423-63

EWf(j)/EWf(m)/BDS ASD Pc-4 RM

ACCESSION NR: AP3001150

S/0190/63/005/006/0875/0880

61  
60

AUTHOR: Levites, E. I.; Volokhina, A. V.; Kudryavtsev, G. I.

TITLE: Solid phase polycondensation. 4. Solid phase copolycondensation of amino acids and the diamine salts of dicarboxylic acids

SOURCE: Vy\*sokomolekulyarny\*ye soyedineniya, v. 5, no. 6, 1963, 875-880

TOPIC TAGS: polycondensation, copolycondensation, amino acids, diamine salts, dicarboxylic acids, copolymers

ABSTRACT: The present work is a continuation of earlier investigations by the authors. It involves the study by the gravimetric method of the kinetics of copolycondensation of four pairs of polyamide-forming monomers, namely, aminoanthic acid (AA) with hexamethylenediamine adipate (HDA), piperazine adipate (PA) with p-aminoethylphenylpropionic acid (PAPP), hexamethylenediamine adipate (HDA) with the decamethylenediamine salt of hexahydroterephthalic acid (DDHTA), and hexamethylenediamine adipate (HDA) with hexamethylenediamine isophthalate (HDIP). The basis for assigning a particular amine to a specific pair hinged on closely matched rates of polycondensation at the same temperature. The end products of the reactions were solid masses, which readily disintegrated into a powder. It was found

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that at 156.5C the polycondensation of AA and HDA partly proceeded in the melt phase, the actual melting point of the mixture being 172-173C, while that of its constituents is 193-194C and 195C. For PA and PAPP, the homopolymers of which are practically not fusible, the reaction proceeds via melt at a temperature exceeding 235C, and for HDA and DDHTA at over 156C. The copolycondensation process for HDA and HDIP in a 1:1 ratio proceeds at 169C in the solid phase, and, having reached 62% of its total potential, it practically stops there. It is assumed that only HDA reacts at this point, which is confirmed by analysis of the resulting polycondensate. The composition of the obtained polyamides was studied by means of chromatography, and their solubility in various solvents was investigated. It was found that the 1:1 copolycondensation product of PA and PAPP was soluble in tri-cresol, while none of the constituent homopolymers were. The chromatographic investigation of the copolycondensation products revealed their structure as that of copolymers with a statistic distribution of monomeric units. This was established for the AA and ADA as well as HDA and DDHTA copolycondensation products. It is concluded that the reaction under investigation yields a true polyamide and not a mixture of homopolyamides. Orig. art. has: 5 charts.

ASSOCIATION: Vsesoyuznyy nauchno-issledovatel'skiy institut iskusstvennogo volokna (All-Union Scientific Research Institute of Artificial Fibers)

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